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United States  
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Agriculture

Office of  
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# Selected Speeches and News Releases

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# Remarks

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U.S. Department of Agriculture • Office of Information

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**Prepared for delivery by Secretary of Agriculture, Clayton Yeutter, to the American Soybean Association's Annual Expo, Des Moines, Iowa, July 24.**

It is a great pleasure to be a part of your annual program and to meet with so many old friends. I have always appreciated the American Soybean Association's effective support of market oriented and liberalized trade policies for this country and for the world. Time and again, your leaders have testified in Congress, and spoken up overseas, in opposition to trade sanctions and in favor of a market-oriented world trading system. I am counting on your continued strong support in the months ahead as we debate the 1990 Farm Bill and as we enter the final days of the Uruguay Round agricultural negotiations.

Thanks to our soils, climate, management know-how, marketing expertise, and transportation systems, soybeans are one commodity in which the United States has a clear-cut production advantage over almost everyone. However, we are confronted with the challenge of revising production and trade policies here and abroad so that U.S. soybean growers have a fair chance in the global marketplace.

## **The 1985 Farm Bill**

Let's take a few minutes to review the 1985 Farm Bill and the context in which it was written. The 1985 legislation responded to large surpluses and uncompetitive prices afflicting U.S. agriculture in the early 1980's. These conditions arose from weak global economic growth and an inordinately strong dollar—both with serious consequences for farm exports. Simultaneously, these damaging farm conditions were exacerbated by earlier farm legislation that lacked the flexibility to deal with changing economic conditions in the U.S. and elsewhere. For instance, high loan rates encouraged U.S. farmers to produce for storage, while guaranteeing our competitors an increased market share and almost sure profits. As one would expect, the European Community and other nations increased production and exports while we idled acreage and built a mountain of stocks. U.S. exports understandably plummeted.

Restoring export growth was a central objective of the 1985 Farm Bill. That legislation reduced loan rates and tied them to market prices, making them more responsive to market conditions. This told our competitors that we were determined to regain our international competitiveness, recapture market share, and would no longer underwrite production expansion around the globe.

The cost of farm programs also was a vital issue for the 1985 legislation, because they had been climbing steadily in the early 1980's. In fact during the time of the bill's debate, farm program outlays were the fastest growing component of the Federal budget. Adoption of the 1985 Farm Bill was expected to reduce costs in the long run by expanding exports, reducing stocks, and gradually lowering target prices.

The 1985 legislation achieved many of its objectives. U.S. agricultural exports bottomed out at \$26 billion and 110 million tons in 1986. This year, we expect to export 146.5 million tons of agricultural products worth about \$39 billion. Stock levels are down dramatically; grain and soybean surpluses have disappeared. The drought contributed, of course, but expanded markets under the 1985 legislation also were major factors.

This adjustment had its price as well, however. The increase in Federal outlays was not arrested until fiscal 1987, after reaching a record \$25.8 billion in fiscal 1986. Over the last two years, outlays have been in the \$10-15 billion range, still very high by historic standards. Under current programs, USDA budget analysts foresee outlays declining slowly over the next several years but still remaining in the \$10-15 billion range. We must ask ourselves whether annual outlays for price and income supports at levels significantly above the long-term average are defensible to the American taxpayer and in the best interest of American farmers. In agricultural policy, as everywhere else, there is no free lunch!

We must realize that there will be severe budget constraints facing us during the life of the 1990 Farm Bill. The Gramm-Rudman-Hollings balanced budget law requires reduction of the Federal budget deficit to \$64 billion in fiscal 1991, \$28 billion in 1992, and zero in 1993. It has been difficult to achieve the reductions in recent years; future targets will be even harder to hit, particularly if we experience a slowdown in U.S. economic growth.

## 1990 Farm Bill

Let's examine several key components of what I believe the 1990 Farm Bill should encompass. A primary objective for the price and income support elements of the new farm bill should be to reduce the rigidity of present programs. In the early 1980's, we learned that programs designed around assumptions and expectations that turn out to be erroneous can be very costly. Programs for the 1990's should be adaptable enough to deal with any eventuality, be it surplus or shortage. The proper way to achieve such flexibility is to allow producers and consumers greater freedom to respond to market signals.

In recent years, farmers have often been locked into production situations unresponsive to shifts in market demand. For example, producer participation in the corn, wheat, cotton, and rice programs has been 80-90 percent for much of this decade. Once producers sign up for these programs, the base acreage is largely committed to either the program crop or a cover crop. As a result, the acreage available for other crops that may be in short supply is limited. Our producers are then artificially denied these new market opportunities, and foreign producers take advantage of them.

Soybean producers can relate to the scenario I have just described. U.S. soybean acreage has fallen from 71 million acres in 1982 to an average of 60 million in recent years. Simultaneous with our reduction, acreage in the major producing countries of South America has risen from 25 to 40 million. We shot ourselves in the foot! Increased program flexibility would allow U.S. producers to grow more soybeans, oats, wheat, and other crops now in relatively short supply.

How can we best increase planting flexibility? Some suggest that producers should simply be allowed to shift their base acreages among program crops. But if each crop's target price payments continue to be tied to that crop's planted acreage, the result will simply be a migration of base acreages toward crops with relatively higher target prices. Program outlays would rise, but we might get limited production response for crops in short supply. And it is conceivable that we could even get a production decrease—perhaps even in soybeans—that would leave us worse off than we are today.

Other proposals being floated in Washington would limit target price coverage to existing base acreage, or some portion of it, and allow producers freedom to plant a variety of crops on the remainder of their land without losing base acreage. The so-called "triple base" is only one

example of this approach. We need to further explore these proposals.

Flexibility is not just a "back door way to cut target prices," as some have labeled it. Even though budget constraints must be addressed in all 1990 legislative proposals, greater flexibility should and can be achieved because it is the right thing to do. It will give us greater return on Federal tax dollars, enhanced economic efficiency, improved international competitiveness, and environmental benefits.

Some realignment of target prices also should be attempted in the new legislation. Present target prices tilt production in ways that do not always or fully reflect underlying economic fundamentals.

We also need to take a fresh look at our stocks policy. In the past, it has been easy for the government to accumulate large stocks, but difficult to disperse them. And stocks often have accumulated at the same time that we have lost market share globally! Current farmer-owned reserve release prices are just too high. For instance, corn and wheat reserves were not even triggered during the 1988/89 season, despite our large production decline due to one of the worst droughts in this century.

In addition to release policy, our storage levels and financing mechanisms need to be examined. The government generally has absorbed most of the cost of holding stocks. For example, in fiscal 1987, outlays for producer and government-held storage totaled \$2.2 billion. We simply must design a stocks policy that makes better sense and has a lower price tag. Storage should provide food security and facilitate exports; it should not be an end in itself.

Another area that must be addressed in the coming legislation is that of yield risk. Last fall, the President appointed the Commission on the Improvement of Federal Crop Insurance. It's job is to recommend improvements to make crop insurance more feasible and viable for farmers. Because it is clear that we cannot continue to have annual ad hoc disaster bills superimposed on crop insurance; we must choose one or the other, not both. Ad hoc legislation sends a signal to farmers not to purchase insurance because the government will bail them out. The Commission recently submitted its report, and our review of its recommendations is underway.

I suspect the majority of next year's farm bill debate may well deal with areas other than the traditional price and income support focus of past farm acts. Food safety and contamination continue to be a growing public concern. Despite the fact that the United States has the safest food supply in the world, we must continue to improve on our record and

communicate our commitment and our achievements to consumers. We hope that this part of the farm bill debate can be balanced and rational without excesses of news media hyperbole and public hysteria borne of ignorance. These serve no one.

Environmental issues and water quality will be on the farm bill agenda as well. The Conservation Reserve Program is working well to help protect our soil. To date, nearly 31 million acres have been enrolled, with annual soil savings already estimated at over 600 million tons. However, given the current tightness in some crop supplies, such as wheat, and the uncertainty of future market conditions, we should carefully evaluate further expansion of this program.

Concern continues to grow over the presence of agricultural chemicals in groundwater supplies. Some form of groundwater protection has been enacted in 35 states. We must evaluate how producers can prevent groundwater contamination while continuing to economically produce abundant supplies of food and fiber. Research and education are important in assessing this issue and in helping farmers to use pesticides in a safe and efficient manner. The areas of low-input sustainable agriculture and best management practices also will receive close examination as a means of addressing groundwater quality.

As we look to the 1990 Farm Bill, we should carefully scrutinize the goals of our credit programs. The Federal Government has heavily subsidized farm production through a wide array of interest-rate subsidies and debt write-downs. Some farmers have been heavily subsidized borrowers for many years—often at interest rates half those of their neighbors. Should our long-term goal be to continue intervening in farm credit markets with billions of dollars in federally subsidized credit? Or, do we want to move toward greater reliance on private credit markets, using government guarantees in the transition? In these times of budget constraints, we should ask if we can truly still afford the kinds of credit programs that were conceived when farmers did not have equal access to national credit markets.

## **Uruguay Round**

Obviously our plate is full at the Department with deliberations beginning on the 1990 Farm Bill, pending disaster legislation, food safety issues, plus many, many other key topics. Yet we must continue to be vigilant and aggressive in the multilateral agricultural trade negotiations

of the Uruguay Round. I'd like to bring you up to date on the latest developments.

Worldwide agricultural subsidies plus the cost to consumers of protectionist agricultural policies now total about \$150 billion yearly! The Uruguay Round of multilateral trade negotiations is the "train leaving the station" that offers us the best opportunity to correct this fiscal madness.

We in the U.S. must spend enormous sums of money to counter, directly or indirectly, the farm policies of competitor nations. If we can convince those nations to change their policies over time, we can afford to change ours too. Production decisions would then be based much more on market conditions and much less on the whims of governments. That needed change would be particularly welcomed by taxpayers everywhere, and this includes U.S. farmers.

During the GATT negotiations in April, a significant "framework" agreement to reform agricultural trade was reached among the major trading nations of the world. That essentially means that the negotiations are on track. We hope to conclude them by the end of next year.

Just two weeks ago, the Agriculture Negotiating Group met in Geneva. U.S. negotiators presented a paper on "tariffication" at the meeting. That's a thirteen-letter word for a common-sense concept. Basically, we are proposing conversion of all agricultural nontariff import barriers into tariff barriers—and then reducing them.

In effect, what we are calling for is an end to the use of such import barriers as quotas, variable levies, and import restrictions or prohibitions administered in connection with marketing boards and state trading operations. We also want to end voluntary restraint agreements, restrictive licensing practices, and other trade-distorting import restrictions and measures. Tariffication does not, however, address the problem of internal support policies, such as price supports, deficiency payments, production subsidies, and input subsidies, or the whole issue of export subsidies. We intend to submit separate proposals dealing with these trade-distorting policies later this year.

Why do we favor tariffication?

First, tariffs distort trade less than other types of import barriers. They establish a direct link between domestic and world market prices and allow the transmission of world market signals. Second, they are "transparent," which means that exporters can assess the impact of a tariff fairly easily—and are freer to compete on the basis of quality, cost, and price. There also are fewer administrative constraints with tariffs. But

tariffication is only a means to an end. The real goal of our approach is not just the conversion of nontariff barriers to their tariff equivalents, but the ultimate reduction of those tariffs.

The European Community was not keen on our proposal. But the EC rarely is. We also expected that Japan would not favor our plan since it would mean an end to Japan's ban on imports of rice. (To encourage domestic rice production, Japanese rice prices are maintained up to 10 times higher than the world level.) However, Japan was commendably reserved its response. And the general reaction of our other trading partners, including most of the Cairns Group, was positive. Several gave our tariffication proposal their unqualified support.

### **The EC's Rebalancing Proposal**

The EC also submitted a paper to the Agriculture Negotiating Group at the same time we submitted our tariffication paper. It called for using an "aggregate measure of support" as a basis for reducing trade distortions. What the EC means by this is that countries would agree to make reforms on a quantified measure, or index, of total support to agriculture. The basic problem with this approach is that countries conceivably could meet their commitments by reducing only one of the three areas that need to be addressed—market access, internal supports, or export subsidies.

For example, the EC—or any other country—might reduce internal support prices, but make no changes in their variable levy or export subsidy schemes. This possibly would meet the EC aggregate measure of support commitment, but provide no export subsidy discipline and no additional market access. We see potential merit to the use of an aggregate measure of support, but it should be a complement to specific commitments in all three areas where reform is needed.

Speaking of world agricultural reform, the EC has contributed little to this goal thus far. In the mid-1970's the EC was a net importer of most temperate agricultural products. By the mid-1980's, the Community became the world's leading exporter of barley, sugar, poultry meat, eggs, beef and veal, and dairy products!

Perhaps the most vivid example is grain. Ten years ago, the EC had net imports of nearly 20 million tons. Now the EC has annual net exports of about 30 million tons. The stated policy goal was self-sufficiency, but that goal was reached long ago. The Community now uses billions of ECUs to unload its surplus production on the world market, often undercutting lower cost competitors.

In effect, the volume of other countries' grain being displaced on the world market by a combination of European variable levies and export restrictions is now 50 million tons larger than it was 10 years ago. Total displacement for the entire 10-year period comes to about 250 million tons of grain.

Let's look at oilseeds, a more relevant issue to this audience. Subsidized oilseed production in the EC continues to skyrocket. From 1983 to 1988, EC budget outlays for the oilseeds sector rose 161 percent, from 1.8 to 4.6 billion ECU's. During the same five-year span, EC domestic oilseed production ran rampant; from 1983 to 1988, EC rapeseed and sunflowerseed production climbed 117 and 133 percent, respectively; soybean production skyrocketed by 1,650 percent.

True, the EC remains an importer of oilseeds and protein meals—but only because the way hasn't yet been found for them to wriggle free of duty-free tariff bindings on oilseeds and nongrain feed ingredients. They propose to do so in the Uruguay Round by "rebalancing," a concept which clearly violates the spirit of trade liberalization.

In rebalancing, the Community presumably would apply new import restrictions on oilseeds and corn gluten in exchange for which it would offer comparable trade concessions on other products. But the purpose of a multilateral trade negotiation is to reduce trade barriers wherever possible, and avoid increasing them anywhere! I find it hard to believe that the EC position on rebalancing will be seriously supported by anyone.

I also find it difficult to accept recent contentions that the EC has made a major unilateral contribution to resolving the world's agricultural problems. It has been the United States which has unilaterally—and perhaps unwisely—disarmed by taking vast amounts of land out of production in recent years. That action has helped support prices everywhere, but the result has been a substantial loss in U.S. market share.

However, let's give the EC credit where credit is due. The Community's recent budget reforms are a modest step in the right direction which have at least limited the annual growth rate in expenditures on agriculture. What is needed now is a commitment to reduce the actual level of expenditures on a long-term basis as other nations do likewise. Most of the "reforms" enacted by the EC since 1984 have not significantly reduced incentives for farmers to produce. Milk production has been reduced by 10 percent, a fine achievement. But

wheat and coarse grain production for 1988/89 is estimated at 163.7 million tons, almost 20 percent over the 1984 level. Oilseed production for 1988/89 is estimated at 11.3 million tons, two-and-one-half times the 1984 level.

Contrast this with actions by the U.S. This crop year, 24 million hectares—or 14 percent—of total U.S. arable land will be idle. This is equal to the total arable land of France and Germany! If we assume the EC set-aside program meets its target of 1.2 million hectares for 1989/90, the amount of base acreage idled would still be less than 2 percent of total EC arable land.

Also, since the passage of the 1985 Farm Bill, the United States has lowered loan rates by 35 percent in feed grains, 37 percent in wheat, and 19 percent in rice, as well as reducing target prices by 6 percent across the board. Target prices, already much lower in the U.S. than in the EC, will continue to fall each year. By 1990, minimum target prices for all grains will have been reduced at least 9 percent, regardless of levels of production.

I don't want to belabor the contrast between the U.S. and EC positions. I just want to give you a sense of what we must face in the months ahead as we make the case for long overdue agricultural reforms.

## Conclusion

Farmers, consumers and taxpayers of the world deserve the political leadership it will take to correct flaws in global agricultural trade. It comes down to this: are the world's trading nations willing to take a bold step toward a future of fewer trade barriers and more trade? The economic case for reform is compelling. As barriers fall away, economic opportunities abound. Let's take the right path, albeit the more difficult one.

I believe our goals are attainable. If we work together, we can restore order and discipline to markets in disarray. But if we continue to defend unsound policies, if negotiators turn away from the fundamental principles needed to discipline world trade in agriculture, then the dreams of Punta del Este will come to naught. A rare opportunity will slip away, and the wasteful policies that tie the hands of farmers and lift money from the pockets of consumers and taxpayers everywhere will linger into the next century. Let's avoid that. Let's do it right, and do it now. Thank you.

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# News Releases

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## FGIS AFLATOXIN TESTING KIT PROCUREMENT PROCESS UNDERWAY

WASHINGTON, July 20—The U.S. Department of Agriculture's Federal Grain Inspection Service will procure commercially available kits to replace the agency's existing methods of testing for aflatoxin in corn.

FGIS recently completed evaluation of commercially available aflatoxin testing kits that will improve the delivery of aflatoxin testing services. FGIS approved five kits—EZ-Screen, Aflatest, Afla-20-Cup, OXOID, and SAM-A—as meeting the testing requirements of the national inspection system for corn.

All five will determine the presence of aflatoxin in corn either quantitatively or by indicating excess of the 20-parts-per-billion aflatoxin threshold.

FGIS now will solicit competitive bids from the manufacturers of EZ-Screen, Aflatest, and Afla-20-Cup to select which kit or kits agency personnel will use. These three test kits would significantly reduce the use of hazardous chemicals associated with the Holaday-Velasco minicolumn (MC) and thin-layer chromatography (TLC) methods, FGIS' current testing methods for aflatoxin.

The kits will be placed at 38 FGIS service points and will replace the current MC and ultraviolet light methods used at these field locations.

In addition, FGIS plans to purchase 10 Aflatest units for FGIS export field offices currently performing TLC quantitative analyses and for three additional offices which receive requests for such services. Aflatest provides quantitative results and will replace the TLC method at those locations.

For technical information, call David Orr, Deputy Director, Field Management Division, FGIS, at (202) 382-0228.

Media contact: Dana Blatt, (202) 382-0378.

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## LIGHT METER TELLS WHEN MELONS ARE SWEET

WASHINGTON, July 24—Infrared light penetrating a cantaloupe, honeydew or watermelon shows whether the melon will taste as good as it looks and smells.

U.S. Department of Agriculture scientists say that near-infrared light used with special filters is 85-percent accurate in measuring the sugar and ripeness in melons. A breadbox-size meter transmits the light through the fruit.

Chemist Gerald G. Dull of USDA's Agricultural Research Service is perfecting the meter, which uses technology called spectrophotometry. "The amount of light absorbed by the fruit is a measure of its sugar content," he said. "The more infrared absorbed, the sweeter the fruit."

He sees the new device possibly being used by the melon industry so growers no longer mistakenly harvest unripe melons.

"Unripe melons that contain only 6 percent sugar can sweeten on the vine in just a few days to an ideal sugar content of 11 percent or more," he said. "Until now farmers have had to rely on the looks and size of fruit to judge when this ripeness occurs."

Dull said, "Consumers could look forward to knowing they are buying sweet cantaloupes and not being disappointed."

He tested the meter last week at the University of Georgia Experiment Station in Tifton and plans further tests this summer.

"In these tests, several hundred melons of many varieties and stages of ripeness are being monitored for sweetness," he said. "We can do this without cutting into a melon."

Then, he added, the meter's accuracy will be thoroughly evaluated by comparing actual chemical measurement against the meter's reading for sugar.

Dull and engineer Gerald S. Birth, who retired recently, have been working together since 1973 at Athens, Ga., to refine and apply light meter technology to measure sweetness in various kinds of fresh produce.

So far, tests with the light meter "have worked as expected" on onions and papayas, Dull said. Peaches and plums are next.

"We believe light meters can be developed and adapted to objectively rate the sweetness of various fruits and vegetables," he said. All these ratings would take into account the commodity's composition, including dry matter and sugar.

Dull said his goal is to develop a portable, miniaturized light meter that could be set to distinguished sweet from sour for most fruits and vegetables.

Hank Becker (301) 344-3547

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USDA RELEASES COST OF FOOD AT HOME FOR JUNE

WASHINGTON, July 24—Here is the U.S. Department of Agriculture’s monthly update of the weekly cost of food at home for June 1989:

Cost of food at home for a week in June 1989

	-----Food plans-----			
	(In Dollars)			
	Thrifty	Low-cost	Moderate cost	Liberal
Families:				
Family of 2 (20-50 years)	45.00	56.40	69.90	86.80
Family of 2 (51 years and over)	42.50	54.20	67.00	80.20
Family of 4 with preschool children	65.30	81.00	99.30	121.90
Family of 4 with elemen- tary schoolchildren	74.90	95.30	119.40	143.80
Individuals in four-person families:				
Children:				
1-2 years	11.70	14.20	16.60	20.00
3-5 years	12.70	15.50	19.20	23.00
6-8 years	15.50	20.60	25.70	30.00
9-11 years	18.50	23.40	30.20	34.90

Females:

12-19 years	19.20	23.00	27.90	33.70
20-50 years	19.40	24.00	29.30	37.50
51 and over	19.10	23.30	28.90	34.50

Males:

12-14 years	19.30	26.50	33.20	38.90
15-19 years	20.10	27.50	34.10	39.60
20-50 years	21.50	27.30	34.20	41.40
51 and over	19.50	26.00	32.00	38.40

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USDA's Human Nutrition Information Service computes the cost of food at home for four food plans—thrifty, low-cost, moderate-cost and liberal.

Dr. James T. Heimbach, acting administrator of HNIS, said the plans consist of foods that provide well-balanced meals and snacks for a week.

In computing the costs, USDA assumes all food is bought at the store and prepared at home. Costs do not include alcoholic beverages, pet food, soap, cigarettes, paper goods, and other nonfood items bought at the store.

"USDA costs are only guides to spending," Heimbach said. "Families may spend more or less, depending on such factors as where they buy their food, how carefully they plan and buy, whether some food is produced at home, what foods the family likes, and how much food is prepared at home.

"Most families will find the moderate-cost or low-cost plan suitable," he said. "The thrifty plan, which USDA uses to set the coupon allotment in the food stamp program, is for families who have tighter budgets. Families with greater economic resources might use the liberal plan."

To use the chart to estimate your family's food costs:

—For members eating all meals at home—or carried from home—use the amounts shown in the chart.

—For members eating some meals out, deduct 5 percent from the amount shown for each meal not eaten at home. Thus, for a person eating lunch out 5 days a week, subtract 25 percent, or one-fourth the cost shown.

—For guests, add 5 percent of the amount shown for the proper age group for each meal.

Costs in the second part of the chart are for individuals in four-person families. If your family has more or less than four, total the “individual” figures and make these adjustments, because larger families tend to buy and use food more economically than smaller ones:

- For a one-person family, add 20 percent.
- For a two-person family, add 10 percent.
- For a three-person family, add 5 percent.
- For a five or six-person family, subtract 5 percent.
- For a family of seven or more, subtract 10 percent.

Details of the four family food plans are available from the Nutrition Education Division, HNIS, USDA, Federal Building, Hyattsville, Md. 20782.

Johna Pierce (301) 436-8617

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## **PUERTO RICO COULD BE DOMESTIC SOURCE OF COCOA**

WASHINGTON, July 25—The day is approaching when chocoholics in the United States will enjoy a domestic source of cocoa—the raw ingredient of chocolate.

That’s because farmers in Puerto Rico now can raise cocoa as a cash crop, using growing techniques that have emerged from eight years of studies by U.S. Department of Agriculture scientists on the island. Their work could also help improve the crop throughout the Caribbean Basin.

In 1988, the United States imported more than \$800 million worth of cocoa beans, powder and cocoa butter—our entire supply—mainly from Brazil, West Africa, Central America and the Dominican Republic. This produced enough confectionary chocolate to supply the per-capita consumption of about 10 pounds annually.

Cocoa can be an alternative crop that Puerto Rican farmers can grow on their steep, marginal soils or the thousands of acres once devoted to sugarcane, according to Heber Irizarry, a horticulturalist with USDA’s Agricultural Research Service. Sugarcane, a long-time island mainstay, has become less profitable because of low yields, increased cost of production and reduced market prices.

For the past eight years, Irizarry and agronomist Edmundo Rivera, at the ARS Tropical Crops and Germplasm Research Laboratory in

Mayaguez, have been evaluating cocoa hybrids from many countries primarily for yield, quality and pest and disease resistance.

The lab houses one of the world's largest collections of cocoa, some 400 different types of germplasm. Supervising agronomist Francisco Vazquez and his team maintain this collection of seeds and plant samples representing the heritable material of a specimen—so that authentic, disease-free clones of cocoa are available for research and establishment of new commercial plantations. The American Cocoa Research Institute provides some financial support for the collection.

Evaluations of cocoa hybrids added to the collections from Costa Rica in 1981-82 have identified some strains that could produce outstanding yields. In experimental trials, six-year old trees showed a yield potential of about 3,500 to 4,000 pounds per acre based on the 1988 harvest. Two thousand pounds per acre is considered a good marketable yield.

“At the same time, we have developed management techniques for fertilizing, watering and spacing trees that show you can grow cocoa in Puerto Rico and get economic yields equivalent to those reported in other cocoa-growing countries,” Irizarry said.

Cocoa from the researchers' test trees has been evaluated by four of the largest U.S. chocolate manufacturers. “They said it meets all of their standards for flavor and other characteristics,” Irizarry said.

It had been believed that cocoa would not grow well under full sunlight in Puerto Rico. “But we've proved otherwise,” he said. “The six-year old trees are about to reach the point of producing 1,500 to 2,000 pounds of dry beans per acre.” Trees reach maturity at six to seven years of age.

Irizarry said growers also could interplant cocoa with plantains, the large banana-like crop grown on the island. “The temporary shade provided by the plantain trees would benefit the cocoa. And the cocoa would provide farmers with a second income-producing crop and additional profits.”

Rivera said that cocoa would meet the island's need for crops that are suited to small family operations, since it can be grown with minimum tillage and does not require expensive machinery.

Puerto Rico imports about 15,000 tons of semi-processed cocoa and confectionary chocolates with a market value of about \$30 million. This adds the possibility of a local use for cocoa grown on the island.

Growing cocoa in Puerto had been tried before in the 1940's, but failed because of disease and insect problems, Rivera said.

However, Puerto Rico has so far been free of black pod fungus, the disease that is a major limiting factor in other cocoa growing areas, he said.

“Our biggest problems right now are the ability of the crop to tolerate acid soil and to resist damage by *Phyllophaga* species, which are insects that eat the bark of the roots,” Rivera said.

Kim Kaplan (301) 344-3932

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## **USDA ANNOUNCES DETAILS OF APPLE ASSISTANCE PROGRAM**

WASHINGTON, July 25—The U.S. Department of Agriculture today announced details of a \$15 million assistance program for apple growers faced with oversupplies and low prices.

“USDA is not purchasing apples for distribution, but is reimbursing the industry up to \$15 million once they remove supplies from normal channels of trade,” said Kenneth C. Clayton, acting administrator of the USDA’s Agricultural Marketing Service.

“Payments will be made for 1988-crop apples donated to organizations that request them, or for apples used in the manufacture of ethanol and livestock feed, or dispersed through other USDA-approved, non-traditional outlets,” Clayton said. He said the apple industry will be responsible for distribution to organizations that request the surplus apples.

Clayton said the purpose of the apple assistance program is to deplete current perishable stocks before the new harvest becomes available in the fall. Under the program, surplus apples must be distributed during August and will not be available for school lunch programs.

An inspector authorized or licensed by USDA must inspect and certify the quality, size, condition, and amount or weight of the apples to be diverted. The program participant will be responsible for all inspection fees.

Clayton said the assistance program will be effective in any state where apples are available from the 1988 crop. USDA will accept applications until Aug. 2, and will decide who can participate by Aug. 8.

Details of the assistance program include:

—The program is open to those in the U.S. apple industry who operate as individuals, partnerships, associations or corporations. They must certify that they possessed trucklots of 1988 crop-fresh apples as of July 3, 1989.

—Payments will be made for apples donated to organizations that request them or for apples used in the manufacture of ethanol and livestock feed, or other acceptable non-traditional outlets.

—Eligibility for program participation will be determined on a lowest to highest competitive bid basis. A completed application form must be received by Aug. 2.

—Bids will be considered for apples meeting certain minimum quality standards in 40-pound cartons or bulk bins.

—USDA will accept or deny bids by Aug. 8, at which time the apples can be diverted.

—To receive payment, apples must be diverted by Aug. 31 and required documentation must be received by USDA by Sept. 30.

—The program applicant must maintain records of apples diverted in the assistance program, and allow USDA, the General Accounting Office, or other government agencies access to those records and facilities for a reasonable time.

—The authority for the apple assistance program is in Section 32 of Public Law 74-320.

Section 32 funds originate from customs receipts and have been traditionally utilized to correct market distortions due to surplus agricultural commodities. Using Section 32 authority during fiscal 1989, USDA expects to procure over 50 different types of commodities, totaling approximately \$400 million.

Application forms and regulations with apple assistance program details are available from the Commodity Procurement Branch, Fruit and Vegetable Division, AMS, USDA, Rm. 2548-S, P.O. Box 96456, Washington, D.C. 20090-6456, telephone (202) 447-6391. Completed applications should be submitted to the same address.

Applicants may submit offers by TWX, telex or facsimile equipment.

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## MYSTERY FUNGUS UNDER STUDY AFTER ATTACKS ON GYPSY MOTHS

WASHINGTON, July 26—A mystery fungus first found in Connecticut on June 19 looks tame under the microscope, but it was the gypsy moth's numberone enemy this year in much of the northeastern United States.

"This is the first time a fungus has been known to cause a massive die-off of gypsy moth caterpillars in North America," said Ann Hajek of the U.S. Department of Agriculture. "I saw single trees with thousands of caterpillar corpses."

Hajek, an entomologist with USDA's Agricultural Research Service, is working to identify the fungus, found in the western Connecticut towns of Wilton and Hamden. She said the same fungus probably killed the leaf-eating pests in areas of Massachusetts, New York, New Jersey, Pennsylvania and New Hampshire.

Hajek is based at the ARS plant protection research laboratory in Ithaca, N.Y. She was called to Connecticut by Theodore Andreadis, insect pathologist at the state's agricultural experiment station in New Haven. He spotted it while examining dead caterpillars from Wilton under microscope.

"Whatever the fungus is," Hajek said, "it's definitely an addition to our arsenal of weapons against gypsy moths. It could provide a new method for biological control for these pests."

Microphotographs of the fungus show that its overwintering stage, one of several stages, resembles a transparent bubble containing a bead. The bead is a droplet of fat that provides the fungus with energy in the spring.

So far, Hajek has placed the fungus in *Entomophaga*, a genus with 10 species. Two species have shown promise as biocontrol agents for gypsy caterpillars and grasshoppers, she said. The fungi secrete enzymes that enable them to invade a pest, then multiply as they devour the pest's insides. Hajek hopes tests of fungal enzymes will identify the Wilton species or determine if it is an unknown species. She will analyze the test results with a microbiologist at the Ithaca lab, Richard A. Humber, who will make the final identification. "We had a lot of rain this spring, and that's favorable for fungi," Hajek said. "All that rain in areas with abundant gypsy moths may be the reason the fungus caused such extensive die-offs."

“Gypsy moths have a three to four-year cycle during which their population expand and then crash. In the third and fourth years, there’s normally a big die-off from a naturally occurring virus.”

But in western Connecticut the moth is only in the first year of the cycle, she noted. That’s why the high caterpillar mortality in Wilton, plus some visible differences on the caterpillar corpses, roused suspicions.

As word of the Wilton fungus spread, Hajek began checking samples sent to her from several states in the northeast and mid-Atlantic regions as far south as Virginia.

It’s possible that the mystery organism is *Entomophaga maimaiga*, Hajek said. In 1984, the ARS imported this species from its native Japan for tests against gypsy caterpillars.

“In lab tests with *E. maimaiga*,” Hajek said, “we’ve seen 95 percent mortality of gypsy moth caterpillars. In Japan, natural populations of the fungus cause big die-offs. That’s why we’ve been so interested in it.

“But no releases of *E. maimaiga* were made in areas where the unidentified fungus has been found.”

This summer, another *Entomophaga* species tested at the ARS lab may be introduced on western rangeland to combat grasshoppers. This fungus is an Australian strain of *E. grylli*, a species common in North America and elsewhere around the world.

Humber helped Soviet scientists learn how to use *E. grylli* and searched for Russian fungi that will be useful in controlling insect pests in the United States.

Hajek conducts her research at the ARS lab and Ithaca’s Boyce Thompson Institute, which is affiliated with Cornell University.

Jim De Quattro (301) 344-4296

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## **USDA TO HOLD PUBLIC MEETINGS ON BOLL WEEVIL ENVIRONMENTAL IMPACT STATEMENT**

WASHINGTON, July 26—The U.S. Department of Agriculture will hold three public meetings in August on the draft environmental impact statement for the national boll weevil program. The meetings will be at 9 a.m. Aug. 13, in Phoenix, Ariz; Aug. 15 in Lubbock, Texas; and Aug. 17 in Montgomery, Ala.

“These meetings will allow the public to comment after reviewing the EIS,” said James W. Glosser, administrator of USDA’s Animal and Plant Health Inspection Service. “We hope these meetings will promote involvement at the federal, state and local level.” Glosser said APHIS will also accept written comments and will give all comments equal weight, regardless of the form in which they are submitted.

The EIS, prepared by APHIS in accordance with the National Environmental Policy Act, discusses boll weevil control alternatives as well as impacts associated with each option. The program alternatives include no action, suppression of the boll weevil across the cotton belt, and beltwide eradication of the pest. APHIS identified the latter as the preferred alternative.

“For each of these three alternatives the impacts on the biological, physical and human environment are discussed,” Glosser said. “In the case of the human environment, the EIS addresses effects of boll weevil control on wilderness areas, domestic animals, recreation, public health and safety, energy, and the economy.”

The boll weevil is the most destructive insect of U.S. cotton and requires more insecticide control than any other agricultural pest in the country. It causes an estimated \$300 million annually in yield losses and control costs, and a total of over \$12 billion worth of damage since its entry from Mexico in 1892. Normal cotton production practices outside the APHIS program areas involve intensive pesticide spraying to control boll weevils, which often kills beneficial insects. This can lead to an even greater need for environmentally disruptive control measures.

Under cooperative federal-state-industry programs, the boll weevil has been successfully eliminated from California’s Imperial Valley, western Arizona, Virginia, North Carolina and most of South Carolina. Programs are underway in Alabama, Florida, Georgia, Texas, Arizona and Mexico.

The meetings will be at the following locations: in Montgomery, at the Alabama Department of Agriculture, Richard Beard Building, 1445 Congressman W.L. Dickerson Drive; in Lubbock, at the City of Lubbock Civic Center, 1501 6th Street; and in Phoenix, at the Cooperative Agricultural Extension Service, 4341 E. Broadway.

Those who wish to speak should register between 8 a.m. and 9 a.m. the morning of the hearing and should limit oral comments to 10 minutes, although more extensive comments may be presented in writing. Speakers will be taken in the order they register; other audience members will be

accommodated if time remains. The sessions will last until 4 p.m., or until all present who wish to speak have done so.

APHIS has sent copies of the EIS to over 500 people who have indicated interest in the program in the past. Anyone who has not received a copy by Aug. 4, and who would like one, should contact Michael Werner, USDA, APHIS, BBEP, Room 828 Federal Building, Hyattsville, Md. 20782. Written comments should be sent in triplicate to the same address before Oct. 2.

Anita K. Brown (301) 436-5931

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## CHINESE PIGS COME TO AMERICA

WASHINGTON, July 26—Properly documented as “new immigrants,” 140 pigs from the People’s Republic of China were admitted officially today to the United States, according to an official with the U.S. Department of Agriculture.

Bearing exotic breed names—Meishan, Ming and Feng-jing—the pigs were released today from quarantine after undergoing four months of testing, says Dr. James W. Glosser, administrator of USDA’s Animal and Plant Health Inspection Service.

The pigs were obtained through a contract between USDA’s Agricultural Research Service and the Chinese National Animal Breeding Stock Import and Export Corporation. ARS, the University of Illinois, and Iowa State University shared equally in the cost of importation and will receive equal shares of the imported animals for study.

Now that they are free to leave quarantine at the APHIS Harry S Truman Animal Import Center on Fleming Key near Key West, Fla., the pigs will head for ARS’s Roman L. Hruska U.S. Meat Animal Research Center at Clay Center, Neb., the University of Illinois at Urbana, Ill., and Iowa State University at Ames, Iowa.

Each university and ARS will fund and conduct its own research program, but projects at each location will be coordinated. Provisions also have been made for the exchange and sharing of germplasm among the three locations in case of a disease outbreak or other unexpected losses.

The Chinese pigs are attractive to their U.S. hosts because they are unusually prolific. Their twice-yearly litters average 16 to 20 piglets, with a record of 33. This compares favorably to an average of 10 to 12 young for most U.S. breeds. The pigs also are reputed to be hardier and more resistant to some diseases than U.S. breeds. Researchers will determine if these characteristics can help improve U.S. swine production.

The overall objective of the research is to cross the Chinese breeds with U.S. breeds to increase litter size while maintaining the lean yield and quality of U.S. pork. It has been estimated that at least 20-25 generations of conventional selection would be required within U.S. swine breeds to increase the litter size of the average U.S. swine breed to the level routinely produced by the Chinese breeds.

The Chinese swine represent a very diverse genetic base that has not been previously available to U.S. researchers and producers. The three breeds selected for importation into the United States are noted not only for their large litter size and early sexual maturity, but also may be more resistant to some diseases and parasites and may have a greater ability to utilize high-roughage diets. Studies will be done at the genetic level to determine and evaluate such attributes.

“APHIS made a special effort to provide safe entry for the Chinese pigs,” Glosser says. “Prior to negotiating the agreement to bring the pigs from China, APHIS and China’s Ministry of Agriculture established protocols covering quarantine and health requirements. APHIS wanted to assure that the pigs would not bring in foreign animal diseases, such as foot-and-mouth disease and hog cholera.”

Overseas, APHIS and Chinese veterinarians subjected the pigs to special selection, isolation and testing. Upon completion of the health requirements within China, USDA made special arrangements to fly the pigs directly to the highly secure environment of APHIS’s quarantine station in Florida. At the quarantine station APHIS veterinarians tested and observed them for signs of diseases. As part of the process, U.S. cattle and pigs were housed next to the Chinese pigs and tested to see if they had contracted any diseases from them.

The entire process of an ocean crossing and adaptation to a new environment can be stressful. While under quarantine, the pigs underwent tests for foot-and-mouth disease, swine vesicular disease, hog cholera, Japanese B encephalitis, pseudorabies, brucellosis and other diseases. These stresses caused the death of four pigs, one of which was sacrificed

as a precaution because a test showed a non-specific reaction. Subsequent microbiological tests were negative. Compared with similar overseas movements of livestock, the Chinese pigs had an excellent survival rate, attesting to the good condition of the pigs selected for shipment to the United States, Glosser said.

Even though the surviving pigs have now been released from quarantine, they still will be watched closely. The receiving research institutions have agreed that they will not transfer genetic material from the pigs to other universities for three years unless agreed to by all parties and the National Pork Producers Council in consultation with state pork producers' organizations in Iowa and Illinois. Genetic material will not be released to the public for at least five years.

“Besides gaining the animals for research, APHIS employees and China’s agricultural officials have reaped the benefits of increased contact that can benefit both countries for the exchange of technical and scientific development in the future,” Glosser said.

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**USDA SUPPORTS DOT PROPOSAL ON ANHYDROUS AMMONIA**

WASHINGTON, July 26—Secretary of Agriculture Clayton Yeutter today expressed support for a proposal by the U.S. Department of Transportation to continue to classify anhydrous ammonia, a commonly used fertilizer, as a nonflammable gas, but require vehicles transporting the material to display an “inhalation hazard” marking.

“I would urge farmers, agricultural shippers and others interested in this issue to make their views known to DOT,” Yeutter said. “The new proposal is a ‘reasonable compromise’ and USDA plans to file comments that are supportive.”

Yeutter explained that in May 1987, DOT’s Research and Special Programs Administration had proposed that anhydrous ammonia be reclassified from a nonflammable gas to a poisonous gas, which would require that vehicles transporting it be marked with a skull and crossbones. Because of strong opposition, DOT issued a subsequent notice soliciting additional views on the proposal.

This March, USDA's Office of Transportation filed a petition with DOT opposing the proposed stringent classification, arguing, among other things, that:

- it would unnecessarily increase transportation insurance costs and require substantial capital investments for suppliers to relocate storage facilities to outlying areas;

- it could confuse emergency response teams by providing inaccurate information. The emergency treatment for toxic substances and corrosive gases, such as anhydrous ammonia, is different;

- it would increase the retail price of anhydrous ammonia, up to \$10 per ton more, and thus directly add to the production costs of farmers for nitrogen-intensive crops such as wheat and corn; and

- it would increase insurance costs for farmer transportation of anhydrous ammonia, again increasing production costs.

DOT's new proposal was published in today's Federal Register with a 90-day comment period.

Use of anhydrous ammonia is critically important to U.S. agriculture, Yeutter said. For decades, farmers have been applying this gas to the soil as a low-cost source of nitrogen fertilizer. Suppliers and applicators of this material are routinely trained in safe handling and transportation procedures.

More than 16 million tons of anhydrous ammonia was manufactured in the United States in 1987, with about 80 percent used for fertilizer. It accounts for an estimated 35 to 40 percent of the nitrogen fertilizer applied to U.S. crops.

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## **U.S. AND SOVIET FORESTRY HEADS PROPOSE CLOSER COOPERATION, JOINT WORKING GROUP**

WASHINGTON, July 27—F. Dale Robertson, chief of the U.S. Department of Agriculture's Forest Service, and Dr. Aleksandr Isaev, chairman of the U.S.S.R. State Forest Committee, today signed letters of intent to increase cooperation between the two countries in forestry research and program activities.

The signing took place at a ceremony at USDA headquarters here as Dr. Isaev and two other officials of the U.S.S.R. State Forest Committee

ended a 12-day, coast-to-coast tour of U.S. forest areas and facilities.

Robertson and Isaev agreed to present a combined proposal at the next meeting of the U.S.-U.S.S.R. Joint Committee on Cooperation in the Field of Agriculture to establish a new Working Group on Forestry. The Joint Committee will meet this fall in Moscow.

In addition, they agreed to encourage development of a U.S.-U.S.S.R. intergovernmental agreement on cooperation in the field of forestry between USDA and the U.S.S.R. State Forest Committee.

Forestry cooperation between the United States and the U.S.S.R. has been administered under an agreement covering scientific and technological cooperation signed in 1972 and an agreement on cooperation in agriculture signed in 1973. Today, the heads of the two nations' forestry organizations are proposing a separate agreement for forestry cooperation.

"I look forward to expanding cooperation and a closer relationship with the State Forest Committee of the Soviet Union," said Chief Robertson. "We have lots to learn from each other."

The two countries have worked together on several projects in recent years, according to Robertson, including a series of 10 scientific exchanges, meetings, and joint studies in forest genetics and biology.

"The Soviets have also been very helpful in locating parasites for potential control of the gypsy moth in this country," said Robertson.

In the Soviet delegation's tour of U.S. forest areas and facilities, Isaev and his colleagues visited hardwood timber stands and a FS insectrearing facility in Hamden, Conn., FS facilities in Washington state, including those at Mount St. Helens and the Wind River Nursery, and FS wildlife and insect-control research projects in Oregon. In Idaho, the delegation toured fire fighting communications facilities, a smokejumper loft, and a fire cache at the Boise Interagency Fire Center.

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